

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor : Andrew J. Callinan

Appln. No. : 10/725,634

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Title : CATIONIC MICROSPHERES AND METHOD  
OF MAKING CATIONIC MICROSPHERES

Docket No. : 58876US002

Appeal No.

Group Art Unit: 1771

Examiner: Daniel R. Zirker

**BRIEF FOR APPELLANT**

Mail Stop Appeal Brief - Patents  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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Sir:

This is an appeal from an Office Action dated January 30, 2006 in which the Examiner finally rejected all of the claims present in the above-identified application, namely claims 1-51.

**REAL PARTY IN INTEREST**

The real party in interest in this Appeal is 3M Innovative Properties Company, which is the owner of the entire right, title, and interest in the above-identified application.

**RELATED APPEALS AND INTERFERENCES**

There are no known related appeals or interferences involving the subject matter or issues in this Appeal, and there are no known related appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in this Appeal.

**STATUS OF THE CLAIMS**

A. TOTAL NUMBER OF CLAIMS IN THE APPLICATION

Claims in the application are: Claims 1-51.

**B. STATUS OF ALL THE CLAIMS**

1. Claims canceled:  
None.
2. Claims withdrawn from consideration, but not canceled:  
None.
3. Claims pending:  
Claims 1-51.
4. Claims allowed:  
None.
5. Claims rejected:  
Claims 1-51.

**C. CLAIMS ON APPEAL**

1. The claims on appeal are: Claims 1-51.

**STATUS OF AMENDMENTS**

No amendments were submitted after the Final Rejection contained in the Office Action dated January 30, 2006.

**SUMMARY OF INVENTION**

Independent claim 1 defines an adhesive composition. The adhesive composition of claim 1 comprises a plurality of cationic microspheres and a fluidizing medium. According to claim 1, the fluidizing medium is effective for supporting fluid application of the adhesive composition to a surface. See lines 28-30 on page 2, lines 13-17 on page 3, lines 18-26 on page 18, and original claim 1.

Claim 2 depends from independent claim 1 and specifies the cationic microspheres have a cationic charge that is permanently and individually bound to each cationic microsphere. See lines 18-26 on page 18 and original claim 2.

Claim 3 depends from independent claim 1 and specifies the cationic microspheres are derived in part from a cationic unsaturated vinyl monomer. See lines 6-10 on page 3, line 21 on page 4 through line 8 on page 5, and original claim 3.

Claim 5 depends from independent claim 1 and specifies the cationic microspheres are derived in part from an unsaturated vinyl comonomer. See lines 10-12 on page 3, line 9 on page 4 through line 28 on page 7, and original claim 5.

Claim 6 depends from independent claim 1 and specifies the adhesive composition further comprises a cationic latex adhesive binder. See lines 29-31 on page 3, line 7 on page 11 through line 6 on page 12, and original claim 6.

Claim 7 depends from independent claim 1 and specifies the adhesive composition further comprises a cationic surfactant. See lines 14-17 on page 3, lines 14-32 on page 8, and original claim 7.

Independent claim 11 defines a mixture that comprises polymerizable substances. The polymerizable substances of claim 11 comprise at least one  $C_N$  alkyl(meth)acrylate monomer, where N is any integer ranging from 4 to 14, and a cationic unsaturated vinyl comonomer. See lines 6-10 and lines 13-17 on page 3 and original claim 11.

Claim 13 depends from independent claim 11 and specifies the polymerizable substances further comprise an unsaturated vinyl comonomer. See lines 10-12 on page 3, line 9 on page 4 through line 28 on page 7, and original claim 13.

Claim 14 depends from independent claim 11 and defines a coating composition. The coating composition of claim 11 comprises cationic microspheres based on the mixture of independent claim 11 and a cationic latex adhesive binder. See lines 27-31 on page 3, line 7 on page 11 through line 6 on page 12, and original claim 14.

Claim 15 depends from dependent claim 14 and further defines the coating composition. According to claim 15, the mixture further comprises a cationic surfactant. See lines 14-17 on page 3, lines 14-32 on page 8, original claim 15, and claim 15, as amended via the Amendment filed on December 1, 2005.

Claim 16 depends from independent claim 11 and specifies the mixture further comprises a cationic surfactant. See lines 14-17 on page 3, lines 14-32 on page 8, and original claim 16.

Claim 18 depends from independent claim 11 and specifies that polymerization of the polymerizable substances is effective to form cationic microspheres. See lines 13-17 and lines 23-27 on page 3, lines 18-26 on page 18, original claim 18, and claim 18, as amended via the Amendment filed on December 1, 2005.

Independent claim 19 defines an adhesive that comprises a polymerized product of polymerizable substances. Claim 19 states the polymerized product is adhesively repositionable between different application surfaces. According to claim 19, the polymerizable substances comprise at least one  $C_N$  alkyl(meth)acrylate monomer, where N is any integer ranging from 4 to 14; and a cationic unsaturated vinyl comonomer. See lines 28-30 on page 2, lines 13-17 on page 3, lines 18-26 on page 18, and original claim 19.

Claim 22 depends from independent claim 19 and specifies the polymerizable substances further comprise an unsaturated vinyl comonomer. See lines 10-12 on page 3, line 9 on page 4 through line 28 on page 7, and original claim 22.

Claim 23 depends from independent claim 19 and specifies the adhesive further comprises a cationic latex adhesive binder. See lines 29-31 on page 3, line 7 on page 11 through line 6 on page 12, and original claim 23.

Claim 24 depends from independent claim 19 and specifies the adhesive further comprises a cationic surfactant. See lines 14-17 on page 3, lines 14-32 on page 8, and original claim 24.

Claim 25 depends from independent claim 19 and specifies performance capabilities of the adhesive. According to claim 25, the adhesive is coated as an adhesive stripe about 18 mm wide and about 33 mm long on a paper substrate at the rate of about 0.65 grams of the adhesive per square foot (7.0 grams per square meter) of the adhesive stripe. Claim 25 states the coated adhesive, when subjected to static angle testing on a surface of a painted steel panel, detaches from the surface of the painted steel panel about 300 seconds after being adhered to the surface of the painted steel panel. See line 19 on page 20 through line 19 on page 21, Example 1 (line 27 on page 21 through line 25 on page 23), line 29 on page 25 through line 17 on page 27 (see Table 1 on page 27), and original claim 25.

Claim 26 depends from claim 23 and further specifies performance capabilities of the adhesive. According to claim 26, the adhesive is coated as an adhesive stripe about 18 mm wide and about 33 mm long on a paper substrate at the rate of about 0.65 grams of the adhesive per square foot (5.9 grams per square meter) of the adhesive stripe. Claim 26 states the coated adhesive, when subjected to static angle testing on a surface of a painted steel panel, detaches from the surface of the painted steel panel about 240 seconds after being adhered to the surface of the painted steel panel. See line 19 on page 20 through line 19 on page 21, Example 2 (line 27 on page 23 through line 27 on page 25), line 29 on page 25 through line 17 on page 27 (see Table 1 on page 27), and original claim 26.

Independent claim 29 defines a method of an adhesive composition. The method of claim 29 comprises causing a plurality of cationic microspheres to exist in a fluidizing medium, which yields the adhesive composition. According to claim 29, the fluidizing medium is effective for supporting fluid application of the adhesive composition to a surface. See lines 28-30 on page 2, lines 13-17 on page 3, lines 18-26 on page 18, and original claim 29.

Claim 30 depends from independent claim 29 and specifies the cationic microspheres have a cationic charge that is permanently and individually bound to each cationic microsphere. See lines 18-26 on page 18 and original claim 30.

Claim 32 depends from independent claim 29 and specifies the cationic microspheres are derived in part from an unsaturated vinyl comonomer. See lines 10-12 on page 3, line 9 on page 4 through line 28 on page 7, lines 17-22 on page 12, and original claim 32.

Claim 33 depends from independent claim 29 and further specifies incorporating a cationic latex adhesive binder in the adhesive composition. See lines 29-31 on page 3, line 7 on page 11 through line 6 on page 12, lines 5-9 on page 15, and original claim 33.

Claim 34 depends from claim 33 and further specifies incorporating a cationic surfactant in the adhesive composition of claim 33. See lines 14-17 on page 3, lines 14-32 on page 8, lines 17-25 on page 12, and original claim 34.

Claim 35 depends from independent claim 29 and specifies incorporating a cationic surfactant in the adhesive composition of claim 29. See lines 14-17 on page 3, lines 14-32 on page 8, lines 17-25 on page 12, and original claim 35.

Independent claim 38 defines a method of making adhesive cationic microspheres. According to the method of claim 38, a polymerizable mixture comprises at least one  $C_N$  alkyl(meth)acrylate monomer, where N is any integer ranging from 4 to 14, and a cationic unsaturated vinyl comonomer. The adhesive cationic microspheres are made in accordance with the method of claim 38 by initiating reaction of the polymerizable mixture. See lines 6-10, lines 13-17, and lines 23-24 on page 3 and original claim 38.

Claim 40 depends from independent claim 38 and specifies the polymerizable mixture further comprises an unsaturated vinyl comonomer. See lines 10-12 on page 3, line 9 on page 4 through line 28 on page 7, lines 17-22 on page 12, and original claim 40.

Claim 43 depends from independent claim 38 and specifies the method of making adhesive cationic microspheres further comprises including a cationic surfactant in the polymerizable mixture. See lines 14-17 on page 3, lines 14-32 on page 8, lines 17-25 on page 12, and original claim 43.

Claim 44 defines a method of using the adhesive cationic microspheres of claim 38. According to claim 44, the method comprises uniformly mixing the adhesive cationic microspheres with a cationic latex adhesive binder to form an adhesive composition. See lines 27-31 on page 3, line 7 on page 11 through line 6 on page 12, lines 5-9 on page 15, and original claim 44.

Claim 45 depends from claim 44 and further specifies including a cationic surfactant in the polymerizable mixture. See lines 14-17 on page 3, lines 14-32 on page 8, lines 17-25 on page 12, and original claim 45.

Claim 46 depends from claim 45 and specifies performance capabilities of the adhesive composition. According to claim 46, the adhesive composition is coated as an adhesive stripe about 18 mm wide and about 33 mm long on a paper substrate at the rate of about 0.65 grams of the adhesive composition per square foot (7.0 grams per square meter) of the adhesive stripe. Claim 46 states the coated adhesive composition, when subjected to static angle testing on a surface of a painted steel panel, detaches from the surface of the painted steel panel about 300 seconds after being adhered to the surface of the painted steel panel. See line 19 on page 20 through line 19 on page 21, Example 1 (line 27 on page 21 through line 25 on page 23), line 29 on page 25 through line 17 on page 27 (see Table 1 on page 27), and original claim 46.

Claim 47 defines a method of using the adhesive cationic microspheres of claim 40. According to claim 47, the method comprises uniformly mixing the adhesive cationic microspheres with a cationic latex adhesive binder to form an adhesive composition. See lines 27-31 on page 3, line 7 on page 11 through line 6 on page 12, lines 5-9 on page 15, and original claim 47.

Claim 48 depends from claim 47 and further specifies including a cationic surfactant in the polymerizable mixture. See lines 14-17 on page 3, lines 14-32 on page 8, lines 17-25 on page 12, and original claim 48.

### ISSUES

- I. One issue is whether claims 1, 4, 7-10, 29, 36 and 37 are anticipated under 35 U.S.C. §102(b) by U.S. Patent No. 4,598,112 to Howard ("the Howard patent").
- II. Another issue is whether claims 1, 4, 7-10, 29, 36 and 37 are rendered obvious under 35 U.S.C. 103(a) by U.S. Patent No. 4,598,112 to Howard ("the Howard patent").
- III. Another issue is whether claims 1-51 are rendered obvious under 35 U.S.C. 103(a) by U.S. Patent No. 4,598,112 to Howard ("the Howard patent") in combination with U.S. Patent No. 5,756,625 to Crandall et. al. ("the Crandall patent").

### ARGUMENT

- I. **The Howard Patent Does Not Anticipate Claims 1, 4, 7-10, 29, 36 and 37.**
  - A. **The Examiner failed to establish that the Howard patent discloses each and every element of claims 1 and 29.**

The Examiner has alleged the Howard patent anticipates claims 1 and 29 under 35 U.S.C. §102(b). However, despite the Examiner's statements in support thereof, the Howard patent does not in fact anticipate any of claims 1 or 29 under 35 U.S.C. §102(b).

"For a prior art reference to anticipate in terms of 35 U.S.C. §102, every element of the claimed invention must be identically shown in a single reference." In re Bond, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Furthermore, the elements disclosed by the single reference "must be arranged as in the claim under review." Bond, 15 U.S.P.Q.2d at 1567. Moreover, "[i]n deciding the issue of anticipation, the trier of fact must identify the elements of the claims . . . and identify corresponding elements disclosed in the allegedly anticipating reference." Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). Thus, "it is incumbent upon the Examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference." Ex parte Levy, 17 U.S.P.Q.2d 1461, 1462 (P.T.O. Bd. Pat. App. & Int'l 1990).



In support of this rejection, the Examiner initially provided the following comments:

Claims 1, 4, 7-10, 29, 36 and 37 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Howard. Note particularly the Abstract, Col 1, line 28- Col 2, line 15, Claim 1. The reference discloses a repositionable acrylate adhesive composition, coated articles and methods of making the adhesive wherein the adhesive may simply be a plurality of cationic microspheres immersed in a film forming binder, which is substantially all that at least the majority of these claims require. As to claims 9 and 37, the absence of adhesive residue is believed to be either inherent, or alternatively an obvious modification to one of ordinary skill.

First complete paragraph on page 3 of Office Action dated September 1, 2005. Despite these comments, the Howard patent does not disclose each and every feature required by claims 1 and 29 and consequently does not anticipate any of claims 1 or 29.

The Howard patent describes preparation of a low tack glue that incorporates polymeric microspheres. (Howard patent: line 67, column 1, through line 3, column 2). The Howard patent emphasizes the polymeric microspheres "are derived from non-ionic monomers." (Howard patent: lines 3-6, column 2). The Howard patent says a suspension stabilizer and a cationic emulsifier are used during the polymerization technique employed to form the polymeric microspheres. (Howard patent: lines 6-8, column 2).

The Howard patent, with reference to U.S. Patent No. 4,166,152 of Baker et. al, states:

The anionic emulsifiers retard particle coalescence [in a composition containing microspheres (i.e. particles)] by surrounding the particle with a negatively charged double layer which provides repulsion of the individual particles.

(Howard patent: lines 24-27, column 1; clarifying comments in brackets added). The Howard patent then mentions preparation of a low tack glue containing microspheres, where the glue is prepared using a cationic emulsifier, as opposed to the anionic emulsifier disclosed in the Baker patent, so a cationic charge is associated with the microspheres in the glue of the Howard patent. (Howard patent: lines 55-58 and 39-42, column 1). Thus, the Howard patent is concerned with forming a glue containing microspheres that are surrounded by a positively charged layer (instead of the negatively charged layer of the Baker patent) by virtue of using a cationic emulsifier in the glue (as opposed to the anionic emulsifier of the Baker patent) to retard particle

(microsphere) coalescence. This last point is confirmed by the following language employed in claim 1 of the Howard patent: "wherein the microspheres are surrounded by a cationic surfactant which prevents particle coalescence." (Howard patent: lines 15-17, column 4).

Thus, though the Howard patent employs the language "cationic microspheres" (line 46, column 1) and talks about "cationically (positively) charged" microspheres (lines 40-41, column 1), it is clear the Howard patent is not actually producing microspheres that incorporate a structural cationic charge. Instead, the microspheres of the Howard patent, while in the glue composition, are surrounded by the cationic (positively charged) surfactant so that the combination of the microspheres and the surrounding surfactant have a net cationic charge.

Claim 1 of the above-identified application reads as follows:

1. *(Original) An adhesive composition, the adhesive composition comprising:  
a plurality of cationic microspheres; and  
a fluidizing medium effective for supporting fluid application of the  
adhesive composition to a surface.*

Thus, claim 1 defines an adhesive composition that comprises a fluidizing medium and cationic microspheres. Next, claim 29 of the above-identified application reads as follows:

29. *(Original) A method of making an adhesive composition, the method comprising:  
causing a plurality of cationic microspheres to exist in a fluidizing  
medium to yield the adhesive composition, the fluidizing medium  
effective for supporting fluid application of the adhesive  
composition to a surface.*

Thus, claim 29 defines a method of making an adhesive composition that concerns a fluidizing medium and cationic microspheres. The above-identified application makes it very clear the cationic microspheres defined in claims 1 and 29 are very different from the microspheres employed in the Howard patent.

The Examiner seeks to turn Applicants' explanation distinguishing the cationic microspheres of claims 1 and 29 from the combination of microspheres and cationic surfactant disclosed in the Howard patent:

[A]pplicants appear to admit at page 19, lines 6-8 and at page 20, lines 11-13 that the reference discloses microspheres that one of ordinary skill in the art would consider to be 'cationic.'

into an admission. First complete paragraph of Office Action dated January 30, 2006, referring to Amendment filed December 1, 2006. The Howard microspheres are not the cationic microspheres defined in the present application, such as in claims 1 and 29. The Examiner is directed to the text referenced by the Examiner in Applicants' Amendment, which says there is a cationic charge associated with the Howard microspheres due to the cationic surfactant that surrounds the Howard microspheres. This is far different from the Examiner's contention about the Howard microspheres being cationic. The Howard patent clearly does not disclose anything about the Howard microspheres being cationic, but instead discloses use of a different component, the cationic surfactant, that associates a cationic charge with the microspheres so long as the cationic surfactant is present.

The Examiner seeks to rely solely on the "cationic microsphere" claim language without considering the true meaning of the "cationic microsphere" term, as recited in claims 1 and 29 of the above-identified application:

More particularly, applicants argue (e.g. page 17, 1<sup>st</sup> complete paragraph) that the 'Howard patent is not actually producing microspheres that incorporate a structural cationic charge'. However, the Examiner submits that the reference either expressly or inherently discloses applicants' straightforwardly claimed (e.g. claim 1) 'cationic microspheres . . . . The fact that these cationic microspheres may be formed in a significantly different manner than those of applicants' invention is patentably irrelevant in view of their broad, chosen claim language.

First complete paragraph on page 2 of Office Action dated January 30, 2006.

The Examiner's attempt to disregard the specification when determining the meaning of the "cationic microsphere" term, as recited in claims 1 and 29, is erroneous. During examination, "claims . . . are to be given their broadest reasonable interpretation consistent with the specification, and . . . claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art." In re American Academy of Science Tech Center, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004) (emphasis added) (citing In re Bond, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990)). "Although the PTO must give claims their broadest reasonable interpretation, this interpretation must be consistent with the one that those skilled in the art would reach." In re American Academy of Science Tech Center, 70 USPQ2d at 1834 (citing In re Cortright, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999)). "[T]he PTO must apply the

broadest reasonable meaning to the claim language, taking into account any definitions presented in the specification.” In re American Academy of Science Tech Center, 70 USPQ2d at 1834 (Fed. Cir. 2004) (citing In re Bass, 65 USPQ2d 1156 (Fed. Cir. 2002)).

The specification of the above-identified application does explain what is meant by the “cationic microsphere” term that is recited in claims 1 and 29. First, the application states the cationic microspheres are “a reaction product of certain polymerizable substances:”

Cationic polymeric elastomeric microspheres (also referred to herein as “cationic microspheres”) that are produced in accordance with the present invention are a reaction product of certain polymerizable substances.

(Lines 6-8, page 3, of the above-identified application). The cationic charge of the Howard microspheres, on the other hand, results from employing a cationic emulsifier in the Howard glue, such that the microspheres of the Howard glue are surrounded by a positively charged layer, by virtue of incorporating the cationic emulsifier in the glue to retard particle (microsphere) coalescence. (Howard patent: lines 55-58 and 39-42, column 1). Again, this last point is confirmed by the following language employed in claim 1 of the Howard patent: “wherein the microspheres are surrounded by a cationic surfactant which prevents particle coalescence.” (Howard patent: lines 15-17, column 4). Thus, the cationic microspheres of the present invention, as defined in claims 1 and 29, are “a reaction product of certain polymerizable substances,” whereas the microspheres of the Howard patent bear a positive charge because the Howard microspheres are surrounded by a cationic surfactant.

Another distinction is the reaction mixture employed to form adhesive composition that comprises the cationic microspheres of the present application may, but does not necessarily, include a cationic surfactant:

The polymerizable substances are included as part of a reaction mixture in the course of preparing the cationic microspheres. In addition to the polymeric substances, the reaction mixture also includes one or more catalyzation initiators. The reaction mixture will typically also include a fluidizing medium, such as deionized water, and a surfactant, such as a cationic surfactant.

(Lines 13-17, page 3, of the above-identified application). The Howard patent, on the other hand, necessarily employs a cationic surfactant (emulsifier) during preparation of the low tack glue that comprises the Howard microspheres. (Howard patent: lines 6-8, column 2).

Finally, the present application states the cationic microspheres are cationically charged. The following details about this cationic charge of the cationic microspheres are provided in the present application:

. . . . Furthermore, the cationic microspheres included in the repositionable PSA have a cationic charge. . . . It is believed the chemical component of the cationic microspheres that causes the cationic microspheres to carry the cationic charge is a structural portion of the cationic microspheres . . . . The cationic microspheres are therefore believed to be unsusceptible to losing the cationic charge.

(Lines 18-26, page 18, of the above-identified application). Thus, the present application states a chemical component of the cationic microspheres that causes the cationic microspheres to carry the cationic charge is believed to be a structural portion of the cationic microspheres and that the cationic microspheres are believed to be unsusceptible of losing this structural cationic charge. The Howard patent, on the other hand, includes no such structural component that contributes a cationic charge to the Howard microspheres. Instead, the Howard microspheres have an associated cationic charge due to the cationic surfactant which surrounds the microspheres and thereby "prevents particle coalescence." (Howard patent: lines 15-17, column 4).

Furthermore, the doctrine of claim differentiation demonstrates the microspheres of the Howard patent are distinct and different from the cationic microspheres of claims 1 and 29. The doctrine of claim differentiation arises from "the common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope." Karlin Tech. Inc. v. Surgical Dynamics, Inc., 50 USPQ2d 1465, 1468 (Fed. Cir. 1999). The doctrine of claim differentiation supports a broader construction of an independent claim versus a claim that depends from the independent claim because the doctrine creates a rebuttable presumption that each claim has a different scope. See Karlin Tech. at 1468. Thus, according to the doctrine, the features recited in a dependent claim should ordinarily not be read into an independent claim that is the basis of the dependent claim. Indeed, the presumption of the doctrine is at its strongest "where the limitation sought to be 'read into' an independent

claim already appears in a dependent claim," Liebel-Flarsheim Co. v. Medrad, Inc., 69 USPQ2d 1801, 1807 (Fed. Cir. 2004).

The doctrine of claim differentiation leads to the conclusion the cationic microspheres defined in claims 1 and 29 are not disclosed in the Howard patent. Any conclusion to the contrary would cause claim 7 to be meaningless. The microspheres of the Howard patent have no associated cationic charge absent placement of cationic surfactant about the Howard microspheres. As noted below, claim 7 depends from claim 1 that requires "cationic microspheres." Claim 7, by virtue of depending from claim 1, defines an adhesive composition that requires both "cationic microspheres" and "a cationic surfactant." If the combination of the microspheres of the Howard patent and the cationic surfactant of the Howard patent were considered to equal the cationic microspheres of claims 1 and 29 of the present application, claim 7 would wind up adding nothing to claim 1 of the present application. This is clearly an absurd result, particularly considering the structural charge incorporation in the cationic surfactant taught by the present application. The doctrine of claim differentiation presumes the cationic surfactant defined in claim 7 adds something in addition to the cationic microsphere defined in claims 1 and 29, absent evidence to the contrary. See Karlin Tech. at 1468. The Examiner has not produced any such evidence to the contrary, so the result of application of the doctrine of claim differentiation is believed valid and probative.

The foregoing comments demonstrate that one of ordinary skill in the art would understand the cationic microspheres recited in claims 1 and 29 of the above-identified application are distinct and different from the microspheres employed in the Howard patent. Consequently, it is clear the Howard patent fails to disclose the cationic microspheres defined in claims 1 and 29 of the present application. Therefore, the Howard patent fails to disclose each and every detail of either claim 1 or claim 29, as required by Bond, 15 U.S.P.Q.2d at 1567. Thus, the Howard patent does not anticipate either claim 1 or claim 29.

Claims 1 and 29 are believed allowable, since the Howard patent does not disclose each and every detail required by claim 1 or claim 29. Consequently, the Examiner erred in rejecting claims 1 and 29 under U.S.C. §102(b) based upon the Howard patent.

Reconsideration and reversal of the rejections of claims 1 and 29 accompanied by allowance of claims 1 and 29 are respectfully requested.

**B. The Examiner failed to establish that the Howard patent discloses each and every element of claim 7.**

The Examiner has also alleged the Howard patent anticipates claim 7 under 35 U.S.C. §102(b). However, despite the Examiner's statements in support thereof, the Howard patent does not in fact anticipate claim 7 under 35 U.S.C. §102(b), since "every element of the claimed invention must be identically shown in a single reference" if a prior art reference is to anticipate in terms of 35 U.S.C. §102. In re Bond, 15 U.S.P.Q.2d at 1567.

As noted above in relation to addressing the Examiner's rejection of claims 1 and 29 based on the Howard patent, the microspheres of the Howard include no such structural component that contributes a cationic charge to the Howard microspheres. Instead, the Howard microspheres have an associated cationic charge due to the cationic surfactant which surrounds the microspheres and thereby "prevents particle coalescence." (Howard patent: lines 15-17, column 4). On the other hand, as explained above, the cationic microspheres of claims 1 and 29 are believed to include a chemical component as a structural portion of the cationic microspheres that causes the cationic microspheres to carry the cationic charge and renders the cationic microspheres unsusceptible of losing this structural cationic charge.

Claim 7 depends from claim 1 that requires "cationic microspheres." Claim 7 reads as follows:

7. *(Original) The adhesive composition of claim 1 wherein the adhesive composition further comprises a cationic surfactant.*

Thus, claim 7 defines an adhesive composition that requires both "cationic microspheres" and "a cationic surfactant."

The Howard patent, as explained above in relation to addressing the Examiner's rejection of claims 1 and 29 based on the Howard patent, does not disclose both cationic microspheres and a cationic surfactant. Instead, the Howard patent discloses a combination of microspheres and a cationic surfactant. The Howard microspheres have an associated cationic

charge due to the cationic surfactant which surrounds the microspheres and thereby "prevents particle coalescence." (Howard patent: lines 15-17, column 4). However, absent this cationic surfactant, the Howard microspheres would have no associated cationic charge.

Furthermore, as explained above, the doctrine of claim differentiation presumes the cationic surfactant defined in claim 7 adds something in addition to the cationic microsphere defined in claims 1 and 29, absent evidence to the contrary. See Karlin Tech. at 1468. The Examiner has not produced any such evidence to the contrary, so the result of application of the doctrine of claim differentiation is believed valid and probative.

The foregoing comments demonstrate to disclose both the cationic surfactant and the cationic microspheres that claim 7 requires. Therefore, the Howard patent fails to disclose each and every detail of claim 7, as required by Bond, 15 U.S.P.Q.2d at 1567. Thus, the Howard patent does not anticipate claim 7.

Claim 7 is believed allowable, since the Howard patent does not disclose each and every detail required by claim 7. Consequently, the Examiner erred in rejecting claim 7 under U.S.C. §102(b) based upon the Howard patent. Reconsideration and reversal of the rejection of claim 7 accompanied by allowance of claim 7 is respectfully requested.

**C. Claims 4, 8-10, and 36-37 each depend from an allowable claim and are each therefore allowable.**

The Examiner has alleged the Howard patent anticipates claims 4, 8-10, and 36-37 under 35 U.S.C. §102(b). Claims 4, 8-10 each depend from allowable independent claim 1. Since claims 4, 8-10 each depend from independent claim 1, the Examiner has failed to establish that the inventions of claims 4, 8-10 are anticipated by the Howard patent, for the reasons stated above with respect to claim 1. Consequently, the Examiner erred in rejecting claims 4, 8-10 under U.S.C. §102(b) based upon the Howard patent. Claims 36-37 each depend from allowable independent claim 29. Since claims 36-37 each depend from independent claim 29, the Examiner has failed to establish that the inventions of claims 36-37 are anticipated by the Howard patent, for the reasons stated above with respect to claim 29. Consequently, the



Examiner erred in rejecting claims 4, 8-10, and 36-37 under U.S.C. §102(b) based upon the Howard patent. Reconsideration and reversal of the rejections of claims 4, 8-10, and 36-37 accompanied by allowance of claims 4, 8-10, and 36-37 are respectfully requested.

**II. The Howard Patent Does Not Teach, Suggest, Disclose, or Render Obvious The Present Invention, As Defined In Claims 1, 4, 7-10, 29, 36 and 37.**

**A. The Examiner failed to establish a prima facie case with respect to the alleged obviousness of claims 1, 7, and 29.**

Under 35 U.S.C. §103, the Examiner bears the burden of establishing a *prima facie* case of obviousness. In re Rijckaert, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must show the teachings from the prior art would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. Rijckaert, 28 U.S.P.Q.2d at 1956. To establish *prima facie* obviousness, the Examiner must show that the prior art **compels** the conclusion the Examiner seeks, and not merely that the prior art would reasonably allow the conclusion the Examiner seeks. In re Spada, 15 U.S.P.Q.2d 1655, 1657, n. 3 (Fed. Cir. 1990). "If the Examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned." Rijckaert, 28 U.S.P.Q.2d at 1956.

The Examiner has never made any allegations about details recited in claims 1, 7, or 29 allegedly being obvious considering the Howard patent, standing alone. Instead, the Examiner has alleged only that the details recited in claims 1 and 29 are disclosed by the Howard patent. Interestingly, the Examiner has never even alleged anything about the details recited in claim 7. The foregoing observations demonstrate the Examiner has not met his burden of establishing a *prima facie* case of obviousness pursuant to Rijckaert. Since the Examiner has failed to establish a *prima facie* case, the rejection of claims 1, 7, and 29 under 35 U.S.C. §103 based on the Howard patent is improper and should be overturned, in accordance with the guidance from Rijckaert. Consequently, Applicants respectfully request that the Examiner's rejection of claims 1, 7, and 29 under 35 U.S.C. §103(a) be reversed and that claims 1, 7, and 29 be allowed.

**B. The Howard patent fails to teach, suggest, disclose, or render obvious each and every element of claims 1, 7, and 29.**

The Examiner has alleged the Howard patent renders claims 1, 7 and 29 obvious under 35 U.S.C. §103(a). However, despite the Examiner's statements in support thereof, the Howard patent does not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 1, 7 and 29.

Some teaching, suggestion, or motivation must exist to modify a prior art reference in the fashion suggested or detailed by an Examiner. The mere fact that a reference could be modified to produce the claimed invention does not make the claimed invention obvious. Libbey-Owens Ford Co. v. BOC Group Inc., 4 U.S.P.Q.2d 1097, 1103 (D.N.J. 1987). Furthermore, the mere fact that the prior art discloses the components of a claimed invention does not make the invention obvious. Northern Telecom, Inc. v. Datapoint Corp., 15 U.S.P.Q.2d 1321, 1323 (Fed. Cir. 1990). Instead, "[s]omething in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination." Uniroyal, Inc. v. Rudkin-Wiley Corp., 5 U.S.P.Q.2d 1434, 1438 (Fed. Cir. 1988).

As noted above, the Examiner has never made any allegations about details recited in claims 1, 7, or 29 allegedly being obvious considering the Howard patent, standing alone. Instead, the Examiner has alleged only that the details recited in claims 1 and 29 are disclosed by the Howard patent, but has not ever alleged anything about the details recited in claim 7.

The Howard patent describes preparation of a low tack glue that incorporates polymeric microspheres. (Howard patent: line 67, column 1, through line 3, column 2). The Howard patent emphasizes the polymeric microspheres "are derived from non-ionic monomers." (Howard patent: lines 3-6, column 2). The Howard patent says a suspension stabilizer and a cationic emulsifier are used during the polymerization technique employed to form the polymeric microspheres. (Howard patent: lines 6-8, column 2). As noted above in relation to the Examiner's anticipation rejections based on the Howard patent, the Howard patent concerns

formation of a glue containing microspheres that are surrounded by a positively charged layer (instead of the negatively charged layer of the Baker patent) by virtue of using a cationic emulsifier in the glue (as opposed to the anionic emulsifier of the Baker patent) to retard particle (microsphere) coalescence. This last point is confirmed by the following language employed in claim 1 of the Howard patent: "wherein the microspheres are surrounded by a cationic surfactant which prevents particle coalescence." (Howard patent: lines 15-17, column 4).

As noted previously, claim 1 defines an adhesive composition that comprises a fluidizing medium and cationic microspheres and claim 29 defines a method of making an adhesive composition that concerns a fluidizing medium and cationic microspheres. Claim 7 depends from claim 1 and further requires a cationic surfactant.

As established above in relation to the Examiner's anticipation rejection of claims 1 and 29, claims 1 and 29 require cationic microspheres produced as a result of polymerization of polymerizable substances, where the structure of the cationic microspheres carries the cationic charge. The cationic microspheres of claims 1 and 29 are not susceptible to losing the cationic charge. On the other hand, the Howard microspheres are based on non-ionic monomers, so the cationic charge associated with the Howard microspheres is associated with the microspheres, but is not a part of the structure of the Howard microspheres.

In essence, the microspheres produced as a result of the polymerization of polymerizable substances in accordance with Howard do not result in any cationic charge association with the Howard microspheres. Rather, the cationic charge associated with the Howard microspheres comes about due to mixture of the Howard microspheres with the cationic surfactant. Thus, as explained previously, the Howard patent does not disclose the cationic microspheres defined in claims 1 and 29, but instead discloses a combination of non-ionic microspheres and cationic surfactant. The cationic surfactant shares cationic charge with the non-ionic microspheres, but there is no indication, suggestion, or disclosure that combination of the cationic surfactant and Howard microspheres are the same as the cationic microspheres defined in claims 1 and 29. Furthermore, as demonstrated with reference to the doctrine of claim differentiation, inclusion of the cationic surfactant detail in claim 7 further highlights the

distinction between the microsphere/cationic surfactant combination of the Howard patent and the cationic microspheres defined in claims 1 and 29.

Thus, it is clear the Howard patent does not actually disclose or produce microspheres that incorporate a structural cationic charge. Instead, the microspheres of the Howard patent, while in the glue composition, are surrounded by the cationic (positively charged) surfactant so the combination of the microspheres and the surrounding surfactant have a net cationic charge. On the other hand, the cationic microspheres of claims 1 and 29 bear a structural charge, and may be produced and utilized in the absence of any cationic surfactant. Simply said, the microspheres of the Howard patent are different from, and do not disclose, the cationic microspheres of claims 1 and 29. Furthermore, the microsphere/cationic surfactant combination of the Howard patent is different from, and does not disclose, the cationic microspheres of claims 1 and 29. Finally, the combination of the cationic microspheres and cationic surfactant required by claim 7 is different from both the microspheres of the Howard patent and is different from the microsphere/cationic surfactant combination of the Howard patent.

Furthermore, there is no teaching, suggestion or motivation evident from the Howard patent to somehow modify the microspheres of the Howard patent or the microsphere/cationic surfactant combination of the Howard patent to equal the cationic microspheres defined in claims 1 and 29. Likewise, there is no teaching, suggestion or motivation evident from the Howard patent to somehow modify the microspheres of the Howard patent so the Howard microspheres would, like the cationic microspheres of the present application, be cationically charged so the Howard cationic surfactant could optionally be eliminated. Thus, the Howard patent lacks any teaching or suggestion leading to the combination of cationic surfactant and cationic microspheres required by claim 7. Indeed, the Examiner does not mention anything about any such modifications. That is likely due to the fact that there is no teaching or suggestion in the Howard patent to modify the microspheres of the Howard patent so the cationic surfactant can be removed from the Howard recipe.

Lacking any such teaching or suggestion, it is clear, pursuant to Libbey-Owens Ford, the Howard patent does not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 1, 7, and 29. Consequently, Applicants believe the Examiner erred in rejecting claims 1, 7, and 29 under U.S.C. §103(a) based upon the Howard patent and that claims 1, 7, and 29 are allowable. Reconsideration and reversal of the rejections of claims 1, 7, and 29 accompanied by allowance of claims 1, 7, and 29 are respectfully requested.

**C. Claims 4, 8-10, and 36-37 each depend from an allowable claim and are each therefore allowable.**

The Examiner has alleged the Howard patent renders claims 4, 8-10, 36, and 37 obvious under 35 U.S.C. §103(a). Claims 4, 8-10 each depend from allowable independent claim 1. Since claims 4, 8-10 each depend from independent claim 1, the Examiner has failed to establish that the inventions of claims 4, 8-10 are rendered obvious by the Howard patent, for the reasons stated above with respect to claim 1. Consequently, the Examiner erred in rejecting claims 4, 8-10 under U.S.C. §103(a) based upon the Howard patent. Claims 36-37 each depend from allowable independent claim 29. Since claims 36-37 each depend from independent claim 29, the Examiner has failed to establish that the inventions of claims 36-37 are rendered obvious by the Howard patent, for the reasons stated above with respect to claim 29. Consequently, the Examiner erred in rejecting claims 4, 8-10, and 36-37 under U.S.C. §103(a) based upon the Howard patent. Reconsideration and reversal of the rejections of claims 4, 8-10, and 36-37 accompanied by allowance of claims 4, 8-10, and 36-37 are respectfully requested.

**III. The Howard and Crandall Patents Do Not Teach, Suggest, or Make Obvious the Invention of the Present Application as Defined in Claims 1-51.**

The Examiner has alleged the Howard and Crandall patents render claims 1-51 obvious under 35 U.S.C. §103(a). In support of this rejection, the Examiner initially provided the following comments:

Claims 1-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howard combined with Crandall et al. Howard is again relied upon substantially as set forth, above, while Crandall et al discloses (note particularly the Abstract, Col 1, lines 10-19, Col 3, line 43 – Col 4, line 37, Col 6, line 59 – Col 9, line 54, Col 10, lines 26 - 36, Examples) what essentially appears to comprise applicants' broad genus of cationic adhesive microspheres that are suitable for forming the claimed genus of repositionable adhesive compositions, together with the accompanying methods of making and using, various adhesive compositions, coated articles and the like. The references are clearly combinable, each featuring repositionable adhesive compositions which feature cationic microspheres, with the microspheres of Crandall et al improving the adhesive compositions of Howard by incorporating their microspheres in place of the Howard microspheres, motivated by (Col 3, lines 44 - 47) an expectation of enhanced stability and performance properties, while maintaining inherent tackiness, elastomeric properties and solvent or water dispersibility. Other parameters that are not either expressly or inherently disclosed are each believed to be routine optimizations to one of ordinary skill, in the absence of unexpected results.

Office Action dated September 1, 2005. Despite these comments, the Howard patent and the Crandall patent, either separately or in combination, fail to teach, suggest, or make obvious the invention of the above-identified application, as defined in claims 1-51.

The Crandall patent discloses microspheres based optionally in part on a comonomer, where the optional comonomer may be nonpolar, ionic, polar, or mixtures thereof. (Crandall patent: lines 59-63, column 6, and lines 1-2, column 7). Examples of suitable comonomers are provided. (Crandall patent: line 13, column 8, through line 50, column 9). However, no teaching or example of a cationic unsaturated vinyl comonomer is provided anywhere within the text, examples, or claims of the Crandall. Indeed, the Examiner did not even allege the Crandall patent teaches, suggests, or discloses the cationic unsaturated vinyl comonomer(s) disclosed and claimed in the above-identified application. Furthermore, the

Examiner did not identify any particular optional comonomer disclosed in the Crandall patent as an example of the cationic unsaturated vinyl comonomer(s) disclosed and claimed in the above-identified application. Instead, the Examiner chose to rely on the broad, conclusory contention about the Crandall patent allegedly disclosing "what essentially appears to comprise applicants' broad genus of cationic adhesive microspheres." Despite this allegation, Applicants assert the Crandall patent does not teach, suggest, disclose, or make obvious the cationic unsaturated vinyl comonomer(s) disclosed and claimed in the above-identified application.

In response to Applicant's argument included in the Amendment filed December 1, 2006, the Examiner responded as follows regarding the cationic unsaturated vinyl monomer missing from the Crandall patent:

The Examiner disagrees with applicants' contention (Response, page 22, 1<sup>st</sup> complete paragraph) that Crandall et al fails to teach, suggest or disclose a 'cationic unsaturated vinyl monomer.' Note, e.g. Col 3, lines 43-47 which clearly teaches such a genus of embodiments, which are also believed to be capable of being polymerized and thus become part of the microspheres as clearly implied by the aforementioned citation, applicants' comments (e.g. Response, bridging paragraph, pages 22-23) to the contrary notwithstanding.

Office Action dated January 30, 2006; paragraph extending from the bottom of page 2 to the top of page 3. The passage relied upon by the Examiner from col. 3, lines 43-47, of the Crandall patent read as follows:

It has now been discovered that microspheres that contain vinyl unsaturated additives with both an ionic and hydrophobic moiety to enhance stability and performance properties, while maintaining inherent tackiness, elastomeric properties and solvent or water dispersibility.

While this passage does appear to pertain to ionic vinyl unsaturated additives, the ionic genus does not necessarily teach cationic vinyl unsaturated additives. More of a teaching is needed, but the Examiner has not pointed to where such additional teaching may be found in the Crandall patent. Thus, the Examiner continues to rely on the broad, conclusory contention about the Crandall patent allegedly disclosing "what essentially appears to comprise applicants' broad genus of cationic adhesive microspheres," even though it actually discloses an ionic genus, rather than a cationic species or genus. Therefore, despite this further allegation, Applicants assert the

Crandall patent does not teach, suggest, disclose, or make obvious the cationic unsaturated vinyl comonomer(s) disclosed and claimed in the above-identified application.

The Crandall patent also discloses incorporation of a vinyl unsaturated additive along with the polymerizable components that are polymerized to form the microspheres. (Crandall patent: lines 59-66, column 6). Examples of suitable vinyl unsaturated additives are provided. (Crandall patent: line 43, column 7, through line 12, column 8). There is no disclosure in the Crandall patent about the vinyl unsaturated additive being polymerized to form part of the microsphere. Furthermore, the Examiner has not alleged the vinyl unsaturated additive is polymerized to form part of the microsphere. Instead, the Crandall patent teaches the vinyl unsaturated additive helps prevent the microspheres that are formed from coagulating during synthesis. (Crandall patent: lines 16-27, column 16). Further evidence that the vinyl unsaturated additive is not polymerized to form part of the microsphere is found in claim 1 of the Crandall patent. Claim defines a "stabilized microsphere adhesive composition" that comprises, among other elements, "a plurality of polymeric, elastomeric microspheres . . ." and the vinyl unsaturated additive. (Crandall patent: lines 39-51, column 18). Thus, the Crandall patent does not teach, suggest, or disclose anything about the vinyl unsaturated additive being polymerized to form part of the microsphere. Instead, the Crandall patent teaches, suggests, and discloses the vinyl unsaturated additive is not polymerized and does not form part of the microsphere.

**A. The Howard and Crandall patents fail to teach, suggest, disclose, or render obvious each and every element of claims 1, 18, and 29.**

The Examiner has alleged the Howard and Crandall patents render claims 1, 18 and 29 obvious under 35 U.S.C. §103(a). Claims 1, 18, and 29 each recite cationic microspheres. Despite the Examiner's statements in support thereof, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 1, 18 and 29.

Some teaching, suggestion, or motivation must exist to modify a prior art reference in the fashion suggested or detailed by an Examiner. The mere fact that a reference



could be modified to produce the claimed invention does not make the claimed invention obvious. Libbey-Owens Ford Co. v. BOC Group Inc., 4 U.S.P.Q.2d 1097, 1103 (D.N.J. 1987). Furthermore, the mere fact that the prior art discloses the components of a claimed invention does not make the invention obvious. Northern Telecom, Inc. v. Datapoint Corp., 15 U.S.P.Q.2d 1321, 1323 (Fed. Cir. 1990). Instead, "[s]omething in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination." Uniroyal, Inc. v. Rudkin-Wiley Corp., 5 U.S.P.Q.2d 1434, 1438 (Fed. Cir. 1988).

As noted above, claims 1, 18, and 29 each recite cationic microspheres. The Examiner suggests that cationic microspheres are disclosed in the Crandall patent and could be substituted in place of the non-ionic microspheres disclosed in the Howard patent. This allegation is troubling for at least one major reason. The present application defines the cationic microspheres of the present invention as being based on a cationic unsaturated vinyl monomer; such a cationic unsaturated vinyl monomer is neither taught nor disclosed in the Crandall patent. Furthermore, Applicants find no suggestion in either the Crandall patent nor the Howard patent to substitute the alleged cationic microspheres of the Crandall patent in place of the non-ionic microspheres of the Howard patent, even if Crandall did (it does not) teach preparation of cationic microspheres. The Examiner points to no particular language in either the Howard or Crandall patent, but instead relies on the misplaced theory that Howard and Crandall both teach cationic microspheres so that provides motivation to swap microspheres. This theory is problematic at a basic level, since neither the Howard patent (see prior discussions of anticipation and obviousness rejections based on Howard alone) nor the Crandall patent (see above) teach preparation of cationic microspheres.

The specification of the above-identified application explains what is meant by the "cationic microsphere" term that is recited in claims 1, 18, and 29. First, the application states the cationic microspheres are derived, in part, from one or more cationic unsaturated vinyl comonomers:

Cationic polymeric elastomeric microspheres (also referred to herein as "cationic microspheres") that are produced in accordance with the present invention are a reaction product of certain polymerizable substances. The polymerizable

substances include at least one C<sub>4</sub>-C<sub>14</sub> alkyl (meth) acrylate monomer and one or more cationic unsaturated vinyl comonomers.

(Lines 6-10, page 3, of the above-identified application; emphasis added). From the discussion above, it has been established that the "cationic microspheres" term of claims 1, 18, and 29 means microspheres that include a cationically-charged chemical component as a structural portion of the microspheres.

As pointed out previously in regard to the Examiner's rejection based solely on the Howard patent, there is no teaching, suggestion, or motivation based on the disclosure of the Howard patent to include a cationically-charged chemical component as a structural portion of the Howard microspheres, as required by the cationic microspheres recited in claims 1, 18, and 29. The Crandall patent, as noted above, does not teach, suggest, or disclose a polymerizable cationic unsaturated vinyl comonomer. Instead, the Crandall patent merely teaches polymerizable ionic, but not cationic, comonomers. (Crandall patent: lines 59-63, column 6, and lines 1-2, column 7). Consequently, there is no teaching, suggestion, or motivation based on the disclosure of the Crandall patent to select and include a cationically-charged chemical component as a structural portion of the Crandall microspheres, as required by the cationic microspheres recited in claims 1, 18, and 29. No teaching, suggestion, or motivation, as required by Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103, exists to modify the Crandall patent in the fashion suggested or detailed by an Examiner. The mere fact that a reference could be modified to produce the claimed invention does not make the claimed invention obvious. Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103.

The only conceivable basis for the Examiner's apparent suggestion of deriving the Crandall microsphere from a cationically-charged chemical component that is included as a structural portion of the Crandall microspheres that contributes the cationic charge in the cationic microspheres and is permanently and chemically bound within the various Crandall microspheres, per claims 1, 18, and 29, would be to rely on the teachings of the specification of the present application as a road map via hindsight reconstruction. However, it is well known that such hindsight reconstruction is an improper basis for alleging obviousness. Hindsight reconstruction of a claimed invention using the claimed invention as a model for picking and choosing details to use in modifying a prior art

disclosure is improper. See In re Fine, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). An Examiner should forget the invention at issue when considering whether it would be obvious to modify a prior art disclosure. See W.L. Gore & Assoc., Inc. v. Garlock, Inc., 220 U.S.P.Q. 303, 312-13 (Fed. Cir. 1983).

Thus, the Examiner's rejection based on the Howard patent and the Crandall patent fails. Even if the microspheres of the Crandall patent were substituted in place of the Howard patent, per the Examiner's suggestion, the resulting combination would still fail to include a cationically-charged chemical component as a structural portion of the microspheres, as required by the cationic microspheres recited in claims 1, 18 and 29.

Lacking the required teaching and suggestion to make the modifications suggested by the Examiner, it is clear, pursuant to Libbey-Owens Ford, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 1, 18, and 29. Consequently, Applicants believe the Examiner erred in rejecting claims 1, 18, and 29 under U.S.C. §103(a) based upon the Howard and Crandall patents and that claims 1, 18, and 29 are allowable. Reconsideration and reversal of the rejections of claims 1, 18, and 29 accompanied by allowance of claims 1, 18, and 29 are respectfully requested.

**B. The Howard and Crandall patents fail to teach, suggest, disclose, or render obvious each and every element of claims 3, 19, and 38.**

The Examiner has alleged the Howard and Crandall patents render claims 3, 11, 19, and 38 obvious under 35 U.S.C. §103(a). Claims 3, 11, 19, and 38 each recite a cationic unsaturated vinyl monomer. Despite the Examiner's statements in support thereof, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 3, 11, 19 and 38.

Each of claims 3, 11, 19, and 38 define a cationic unsaturated vinyl comonomer that is described as being incorporated in cationic microspheres (claim 3), described as a polymerizable substance (claims 11 and 19), described as a component of a polymerized product

(claim 19), or described as part of a polymerizable mixture (claim 38). As explained above, the Crandall patent does not teach, suggest, or disclose a cationic unsaturated vinyl comonomer that is described as a polymerizable substance. Instead, the Crandall patent merely teaches polymerizable ionic, but not cationic, comonomers. (Crandall patent: lines 59-63, column 6, and lines 1-2, column 7).

The Crandall patent thus fails to teach suggest, disclose or make obvious the invention of the above-identified application, as defined in claims 3, 11, 19, and 38. The Examiner's suggestion of substituting the Crandall microspheres in place of the Howard microspheres adds nothing in regard to claims 3, 11, 19, and 38 since neither the Crandall patent nor the Howard patent teaches, suggests, or discloses a cationic unsaturated vinyl comonomer that is described as a polymerizable substance.

As pointed out previously in regard to the Examiner's rejection based solely on the Howard patent, there is no teaching, suggestion, or motivation based on the disclosure of the Howard patent to include a cationically-charged chemical component as a structural portion of the Howard microspheres. The Crandall patent, as noted above, does not teach, suggest, or disclose a polymerizable cationic unsaturated vinyl comonomer. Instead, the Crandall patent merely teaches polymerizable ionic, but not cationic, comonomers. (Crandall patent: lines 59-63, column 6, and lines 1-2, column 7). Consequently, there is no teaching, suggestion, or motivation based on the disclosure of the Crandall patent to select and include a cationically-charged chemical component (i.e. cationic unsaturated vinyl comonomer) as a structural portion of the Crandall microspheres, as recited in claims 3, 11, 19, and 38. No teaching, suggestion, or motivation, as required by Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103, exists to modify the Crandall patent in the fashion suggested or detailed by an Examiner. The mere fact that a reference could be modified to produce the claimed invention does not make the claimed invention obvious. Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103.

The only conceivable basis for the Examiner's apparent suggestion of deriving the Crandall microsphere from a cationically-charged chemical component that is included as a structural portion of the Crandall microspheres, per claims 3, 11, 19, and 38, would be to rely on the teachings

of the specification of the present application as a road map via hindsight reconstruction. However, it is well known that such hindsight reconstruction is an improper basis for alleging obviousness. See In re Fine, 5 U.S.P.Q.2d at 1600.

Thus, the Examiner's rejection based on the Howard patent and the Crandall patent fails. Even if the microspheres of the Crandall patent were substituted in place of the Howard patent, per the Examiner's suggestion, the resulting combination would still fail to include a cationically-charged chemical component as a structural portion of the microspheres, as required by the recitations of claims 3, 11, 19, and 38.

Lacking the required teaching and suggestion to make the modifications suggested by the Examiner, it is clear, pursuant to Libbey-Owens Ford, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 3, 11, 19, and 38. Consequently, Applicants believe the Examiner erred in rejecting claims 3, 11, 19, and 38 under U.S.C. §103(a) based upon the Howard and Crandall patents and that claims 3, 11, 19, and 38 are allowable. Reconsideration and reversal of the rejections of claims 3, 11, 19, and 38 accompanied by allowance of claims 3, 11, 19, and 38 are respectfully requested.

C. **The Howard and Crandall patents fail to teach, suggest, disclose, or render obvious each and every element of claims 2 and 30.**

The Examiner has alleged the Howard and Crandall patents render claims 2 and 30 obvious under 35 U.S.C. §103(a). Claims 2 and 30 each specify that cationic microspheres have a cationic charge that is permanently and individually bound to each cationic microsphere. Despite the Examiner's statements in support thereof, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 2 and 30.

As explained above, the Crandall patent does not teach, suggest, or disclose a cationic unsaturated vinyl comonomer that is described as a polymerizable substance. Instead,

the Crandall patent merely teaches polymerizable ionic, but not cationic, comonomers. (Crandall patent: lines 59-63 , column 6, and lines 1-2, column 7).

The Crandall patent thus fails to teach suggest, disclose or make obvious the invention of the above-identified application, as defined in claims 2 and 30, since the above-identified application specifies that polymerizable cationic unsaturated vinyl monomers are needed to produce cationic microspheres having a cationic charge, as required by claims 2 and 30, that is permanently and individually bound to each cationic microsphere. The Examiner's suggestion of substituting the Crandall microspheres in place of the Howard microspheres adds nothing in regard to claims 2 and 30 since neither the Crandall patent nor the Howard patent teaches, suggests, or discloses a cationic unsaturated vinyl comonomer that is described as a polymerizable substance.

As pointed out previously in regard to the Examiner's rejection based solely on the Howard patent, there is no teaching, suggestion, or motivation based on the disclosure of the Howard patent to include a cationically-charged chemical component as a structural portion of the Howard microspheres. The Crandall patent, as noted above, does not teach, suggest, or disclose a polymerizable cationic unsaturated vinyl comonomer. Instead, the Crandall patent merely teaches polymerizable ionic, but not cationic, comonomers. (Crandall patent: lines 59-63, column 6, and lines 1-2, column 7). Consequently, there is no teaching, suggestion, or motivation based on the disclosure of the Crandall patent to select and include a cationically-charged chemical component (i.e. cationic unsaturated vinyl comonomer) to yield a cationic charge that is permanently and individually bound to each cationic microsphere, as required by claims 2 and 30. No teaching, suggestion, or motivation, as required by Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103, exists to modify the Crandall patent in the fashion suggested or detailed by an Examiner. The mere fact that a reference could be modified to produce the claimed invention does not make the claimed invention obvious. Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103.

Thus, the Examiner's rejection based on the Howard patent and the Crandall patent fails. Even if the microspheres of the Crandall patent were substituted in place of the Howard patent, per the Examiner's suggestion, the resulting combination would still fail to

include microspheres with cationic charge that is permanently and individually bound to each cationic microsphere, as required by claims 2 and 30.

Lacking the required teaching and suggestion to make the modifications suggested by the Examiner, it is clear, pursuant to Libbey-Owens Ford, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 2 and 30. Consequently, Applicants believe the Examiner erred in rejecting claims 2 and 30 under U.S.C. §103(a) based upon the Howard and Crandall patents and that claims 2 and 30 are allowable. Reconsideration and reversal of the rejections of claims 2 and 30 accompanied by allowance of claims 2 and 30 are respectfully requested.

**D. The Howard and Crandall patents fail to teach, suggest, disclose, or render obvious each and every element of claims 5, 13, 22, and 32.**

The Examiner has alleged the Howard and Crandall patents render claims 5, 13, 22, and 32 obvious under 35 U.S.C. §103(a). Claims 5, 13, 22, and 32 each define an unsaturated vinyl comonomer. Despite the Examiner's statements in support thereof, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 5, 13, 22, and 32.

Each of claims 5, 13, 22, and 32 define an unsaturated vinyl comonomer that is described as being incorporated in cationic microspheres (claims 5 and 32), described as a polymerizable substance (claims 13 and 22), described as a component of a polymerized product (claim 22), or described as part of a polymerizable mixture (claim 38). As explained above, the Crandall patent does not teach, suggest, or disclose an unsaturated vinyl comonomer that is described as a polymerizable substance.

Specifically, the Crandall patent discloses incorporation of a vinyl unsaturated additive along with the polymerizable components that are polymerized to form the microspheres. (Crandall patent: lines 59-66, column 6). Examples of suitable vinyl unsaturated additives are provided. (Crandall patent: line 43, column 7, through line 12, column 8). There is no disclosure in the Crandall patent about the vinyl unsaturated additive being polymerized to form part of the

microsphere. Furthermore, the Examiner has not alleged the vinyl unsaturated additive is polymerized to form part of the microsphere. Instead, the Crandall patent teaches the vinyl unsaturated additive helps prevent the microspheres that are formed from coagulating during synthesis. (Crandall patent: lines 16-27, column 16). Further evidence that the vinyl unsaturated additive is not polymerized to form part of the microsphere is found in claim 1 of the Crandall patent. Claim defines a “stabilized microsphere adhesive composition” that comprises, among other elements, “a plurality of polymeric, elastomeric microspheres . . .” and the vinyl unsaturated additive. (Crandall patent: lines 39-51, column 18). Thus, the Crandall patent does not teach, suggest, or disclose anything about the vinyl unsaturated additive being polymerized to form part of the microsphere. Instead, the Crandall patent teaches, suggests, and discloses the vinyl unsaturated additive is not polymerized and does not form part of the microsphere.

Thus, there is no teaching, suggestion, or motivation based on the disclosure of the Crandall patent to select and include a polymerizable unsaturated vinyl comonomer as required by claims 5, 13, 22, and 32, to yield a cationic microsphere,. No teaching, suggestion, or motivation, as required by Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103, exists to modify the Crandall patent in the fashion suggested or detailed by an Examiner. The mere fact that a reference could be modified to produce the claimed invention does not make the claimed invention obvious. Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103.

Thus, the Examiner’s rejection based on the Howard patent and the Crandall patent fails. Lacking the required teaching and suggestion to make the modifications suggested by the Examiner, it is clear, pursuant to Libbey-Owens Ford, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 5, 13, 22, and 32. Consequently, Applicants believe the Examiner erred in rejecting claims 5, 13, 22, and 32 under U.S.C. §103(a) based upon the Howard and Crandall patents and that claims 5, 13, 22, and 32 are allowable. Reconsideration and reversal of the rejections of claims 5, 13, 22, and 32 accompanied by allowance of claims 5, 13, 22, and 32 are respectfully requested.

**E. The Howard and Crandall patents fail to teach, suggest, disclose, or render obvious each and every element of claims 6, 14, 23, 33, 44, and 47.**



The Examiner has alleged the Howard and Crandall patents render claims 6, 14, 23, 33, 44, and 47 obvious under 35 U.S.C. §103(a). Claims 6, 14, 23, 33, 44, and 47 each define a cationic latex adhesive binder. Despite the Examiner's statements in support thereof, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 6, 14, 23, 33, 44, and 47.

The Crandall patent and the Howard patent do not teach, suggest, or disclose a cationic latex adhesive binder. In fact, the Examiner never even mentioned anything about the Crandall patent or the Howard patent and the required cationic latex adhesive binder of claims 6, 14, 23, 33, 44, and 47. Thus, there is no teaching, suggestion, or motivation based on the disclosure of the Crandall patent or the Howard patent to include a cationic latex adhesive binder as required by claims 6, 14, 23, 33, 44, and 47. No teaching, suggestion, or motivation, as required by Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103, exists to modify the Crandall patent in the fashion suggested or detailed by an Examiner.

Thus, the Examiner's rejection based on the Howard patent and the Crandall patent fails. Lacking the required teaching and suggestion to make the modifications suggested by the Examiner, it is clear, pursuant to Libbey-Owens Ford, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 6, 14, 23, 33, 44, and 47. Consequently, Applicants believe the Examiner erred in rejecting claims 6, 14, 23, 33, 44, and 47 under U.S.C. §103(a) based upon the Howard and Crandall patents and that claims 6, 14, 23, 33, 44, and 47 are allowable. Reconsideration and reversal of the rejections of claims 6, 14, 23, 33, 44, and 47 accompanied by allowance of claims 6, 14, 23, 33, 44, and 47 are respectfully requested.

**F. The Howard and Crandall patents fail to teach, suggest, disclose, or render obvious each and every element of claims 7, 15, 16, 24, 34, 35, 43, and 45.**

The Examiner has alleged the Howard and Crandall patents render claims 7, 15, 16, 24, 34, 35, 43, and 45 obvious under 35 U.S.C. §103(a). Claims 7, 15, 16, 24, 34, 35, 43, and 45 each define a cationic surfactant. As noted previously in relation to claim 7, the Howard patent, standing alone, fails to teach, suggest, disclose, or make obvious use of a cationic surfactant in combination with cationic microspheres of the present invention. Furthermore, despite the Examiner's statements in support thereof, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 7, 15, 16, 24, 34, 35, 43, and 45.

The Examiner relies on the Crandall patent for allegedly teaching production of cationic microspheres and apparently relies on the Howard patent for cationic surfactant that would allegedly remain if Crandall did in fact teach (it does not) preparation of cationic microspheres and substitution of the Crandall microspheres in place of the Howard non-ionic microspheres. However, as explained previously herein at length, the Crandall patent does not teach preparation of cationic microspheres.

Thus, there is no teaching, suggestion, or motivation based on the disclosure of the Crandall patent and the Howard patent to supply cationic surfactant, per claims 7, 15, 16, 24, 34, 35, 43, and 45 along with cationic microspheres, per the Examiner. No teaching, suggestion, or motivation, as required by Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103, exists to modify the Crandall patent in the fashion suggested or detailed by an Examiner and to thereafter substitute the alleged Crandall cationic microspheres in place of the Howard microspheres while retaining the Howard cationic surfactant. The mere fact that a reference could be modified to produce the claimed invention does not make the claimed invention obvious. Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103.

Thus, the Examiner's rejection based on the Howard patent and the Crandall patent fails. Lacking the required teaching and suggestion to make the modifications suggested by the Examiner, it is clear, pursuant to Libbey-Owens Ford, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application,

as defined in claims 7, 15, 16, 24, 34, 35, 43, and 45. Consequently, Applicants believe the Examiner erred in rejecting claims 7, 15, 16, 24, 34, 35, 43, and 45 under U.S.C. §103(a) based upon the Howard and Crandall patents and that claims 7, 15, 16, 24, 34, 35, 43, and 45 are allowable. Reconsideration and reversal of the rejections of claims 7, 15, 16, 24, 34, 35, 43, and 45 accompanied by allowance of claims 7, 15, 16, 24, 34, 35, 43, and 45 are respectfully requested.

**G. The Howard and Crandall patents fail to teach, suggest, disclose, or render obvious each and every element of claims 25-26, 46, and 49.**

The Examiner has alleged the Howard and Crandall patents render claims 25-26, 46, and 49 obvious under 35 U.S.C. §103(a). Claims 25-26, 46, and 49 each define test results for adhesive produced in accordance with the present invention and subjected to static angle testing, as described in the present application. Despite the Examiner's statements in support thereof, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 25-26, 46, and 49.

Neither the Howard patent nor the Crandall patent teaches, suggests, or disclose use of the test procedures defined in claims 25-26, 46, and 49. To solve this shortcoming, the Examiner uses a broad brushed approach to allege it would be obvious to optimize the alleged combination of the alleged Crandall cationic microspheres in place of the Howard microspheres to obtain the results defined in claims 25-26, 46, and 49:

Other parameters that are not either expressly or inherently disclosed are each believed to be routine optimizations to one of ordinary skill, in the absence of unexpected results.

Office Action dated September 1, 2005. However, the mere fact that a reference could be modified to produce the claimed invention does not make the claimed invention obvious. Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103. Here, the Examiner's allegation is speculative, at best, and there is simply no basis for even believing the Examiner's alleged Crandall cationic microspheres, when substituted in place of the Howard microspheres while retaining the Howard cationic surfactant, per the Examiner, would achieve the claimed results or even possess the claimed cationic microspheres.

Thus, there is no teaching, suggestion, or motivation based on the disclosure of the Crandall patent and the Howard patent to achieve the results defined in claims 25-26, 46, and 49, per the Examiner's suggestion. No teaching, suggestion, or motivation, as required by Libbey-Owens Ford, 4 U.S.P.Q.2d at 1103, exists to modify the Crandall patent in the fashion suggested or detailed by an Examiner and to thereafter substitute the alleged Crandall cationic microspheres in place of the Howard microspheres while retaining the Howard cationic surfactant and then attempting to optimize the combination to achieve the results defined in claims 25-26, 46, and 49.

Thus, the Examiner's rejection based on the Howard patent and the Crandall patent fails. Lacking the required teaching and suggestion to make the modifications suggested by the Examiner, it is clear, pursuant to Libbey-Owens Ford, the Howard and Crandall patents do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 25-26, 46, and 49. Consequently, Applicants believe the Examiner erred in rejecting claims 25-26, 46, and 49 under U.S.C. §103(a) based upon the Howard and Crandall patents and that claims 25-26, 46, and 49 are allowable. Reconsideration and reversal of the rejections of claims 25-26, 46, and 49 accompanied by allowance of claims 25-26, 46, and 49 are respectfully requested.

**H. Claims 4, 8-10, and 36-37 each depend from an allowable claim and are each therefore allowable.**

The Examiner has alleged the Howard and Crandall patents render claims 4, 8-10, 12, 17, 20-21, 27-28, 31, 36-37, 39, 41-42, and 50-51 obvious under 35 U.S.C. §103(a). Claims 4, 8-10 each depend from allowable independent claim 1. Since claims 4, 8-10 each depend from independent claim 1, the Examiner has failed to establish that the inventions of claims 4, 8-10 are rendered obvious by the Howard and Crandall patents, for the reasons stated above with respect to claim 1. Consequently, the Examiner erred in rejecting claims 4, 8-10 under U.S.C. §103(a) based upon the Howard and Crandall patents. Claims 12 and 17 each depend from allowable independent claim 11. Since claims 12 and 17 each depend from independent claim 11, the Examiner has failed to establish that the inventions of claims 12 and 17 are rendered

obvious by the Howard and Crandall patents, for the reasons stated above with respect to claim 11. Claims 20-21 and 27-28 each depend from allowable independent claim 19. Since claims 20-21 and 27-28 each depend from independent claim 19, the Examiner has failed to establish that the inventions of claims 20-21 and 27-28 are rendered obvious by the Howard and Crandall patents, for the reasons stated above with respect to claim 19. Claims 31 and 36-37 each depend from allowable independent claim 29. Since claims 31 and 36-37 each depend from independent claim 29, the Examiner has failed to establish that the inventions of claims 31 and 36-37 are rendered obvious by the Howard and Crandall patents, for the reasons stated above with respect to claim 29. Claims 39, 41-42, and 50-51 each depend from allowable independent claim 38. Since claims 31 and 36-37 each depend from independent claim 38, the Examiner has failed to establish that the inventions of claims 31 and 36-37 are rendered obvious by the Howard and Crandall patents, for the reasons stated above with respect to claim 38.

Thus, the Examiner erred in rejecting claims 4, 8-10, 12, 17, 20-21, 27-28, 31, 36-37, 39, 41-42, and 50-51 under U.S.C. §103(a) based upon the Howard and Crandall patents. Reconsideration and reversal of the rejections of claims 4, 8-10, 12, 17, 20-21, 27-28, 31, 36-37, 39, 41-42, and 50-51 accompanied by allowance of claims 4, 8-10, 12, 17, 20-21, 27-28, 31, 36-37, 39, 41-42, and 50-51 are respectfully requested.

#### IV. Conclusion.

For the foregoing reasons the Examiner erred in rejecting claims 1-51. Reconsideration and reversal of the rejections of claims 1-51 accompanied by allowance of claims 1-51 are respectfully requested.

Respectfully submitted,

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Serial No.: 10/725,634

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Appendix A  
**CLAIMS ON APPEAL (1-51)**

1. (Original) An adhesive composition, the adhesive composition comprising:  
a plurality of cationic microspheres; and  
a fluidizing medium effective for supporting fluid application of the adhesive composition to a surface.
2. (Original) The adhesive composition of claim 1 wherein the cationic microspheres have a cationic charge that is permanently and individually bound to each cationic microsphere.
3. (Original) The adhesive composition of claim 1 wherein the cationic microspheres are derived in part from a cationic unsaturated vinyl monomer.
4. (Original) The adhesive composition of claim 1 wherein the cationic microspheres are derived in part from a CN alkyl(meth)acrylate monomer where N is any integer ranging from 4 to 14.
5. (Original) The adhesive composition of claim 1 wherein the cationic microspheres are derived in part from an unsaturated vinyl comonomer.
6. (Original) The adhesive composition of claim 1 wherein the adhesive composition further comprises a cationic latex adhesive binder.

Appendix A (Continued)  
**CLAIMS ON APPEAL (1-51)**

7. (Original) The adhesive composition of claim 1 wherein the adhesive composition further comprises a cationic surfactant.
8. (Original) An adhesive article, the adhesive article comprising:
  - a substrate; and
  - a coating of the adhesive composition of claim 1 on the substrate, the adhesive composition effective to allow positioning of the adhesive article on a first application surface and repositioning of the adhesive article on a second application surface.
9. (Original) The adhesive article of claim 8 wherein the adhesive composition is effective to allow the repositioning of the adhesive article from the first application surface to the second application surface without leaving any visible residue of the pressure sensitive adhesive on the first application surface, the visible residue being any residue that is visible to the unaided eye of a human being.
10. (Original) A method of making an adhesive article, the method comprising applying a coating of the adhesive composition of claim 1 on a substrate to form the adhesive article, the adhesive composition effective to allow positioning of the adhesive article on a first application surface and repositioning of the adhesive article on different application surfaces.



Appendix A (Continued)  
**CLAIMS ON APPEAL (1-51)**

11. (Original) A mixture, the mixture comprising polymerizable substances, the polymerizable substances comprising:
  - at least one CN alkyl(meth)acrylate monomer, where N is any integer ranging from 4 to 14; and
  - a cationic unsaturated vinyl comonomer.
12. (Original) The mixture of claim 11 wherein the at least one CN alkyl(meth)acrylate monomer comprises iso-octyl acrylate.
13. (Original) The mixture of claim 11 wherein the polymerizable substances further comprise an unsaturated vinyl comonomer.
14. (Previously Presented) A coating composition, the coating composition comprising:
  - cationic microspheres based on the mixture of claim 11; and wherein the mixture
  - further comprises a cationic latex adhesive binder.
15. (Previously Presented) The coating composition the mixture of claim 14 wherein the mixture further comprises a cationic surfactant.

Appendix A (Continued)  
**CLAIMS ON APPEAL (1-51)**

16. (Original) The mixture of claim 11 wherein the mixture further comprises a cationic surfactant.
17. (Original) The mixture of claim 11 wherein the mixture further comprises a catalyzation initiator.
18. (Previously Presented) The mixture of claim 11 wherein polymerization of the polymerizable substances is effective to form cationic microspheres.
19. (Original) An adhesive, the adhesive comprising:
  - a polymerized product of polymerizable substances, the polymerized product adhesively repositionable between different application surfaces, the polymerizable substances comprising:
    - at least one CN alkyl(meth)acrylate monomer, where N is any integer ranging from 4 to 14; and
    - a cationic unsaturated vinyl comonomer.
20. (Original) The adhesive of claim 19 wherein the polymerized product comprises polymeric elastomeric microspheres that render the adhesive pressure sensitive.

Appendix A (Continued)

**CLAIMS ON APPEAL (1-51)**

21. (Original) The adhesive of claim 19 wherein the at least one CN alkyl(meth)acrylate monomer comprises iso-octyl acrylate.
22. (Original) The adhesive of claim 19 wherein the polymerizable substances further comprise an unsaturated vinyl comonomer.
23. (Original) The adhesive of claim 19 wherein the repositionable pressure sensitive adhesive further comprises a cationic latex adhesive binder.
24. (Original) The adhesive of claim 19 wherein the repositionable pressure sensitive adhesive further comprises a cationic surfactant.
25. (Original) The adhesive of claim 19 wherein the adhesive, when subjected to static angle testing on a surface of a painted steel panel, following coating of the adhesive as an adhesive stripe about 18 mm wide and about 33 mm long on a paper substrate at the rate of about 0.65 grams of the adhesive per square foot (7.0 grams per square meter) of the adhesive stripe, detaches from the surface of the painted steel panel about 300 seconds after being adhered to the surface of the painted steel panel.

Appendix A (Continued)

**CLAIMS ON APPEAL (1-51)**

26. (Original) The adhesive of claim 23 wherein the adhesive, when subjected to static angle testing on a surface of a painted steel panel, following coating of the adhesive as an adhesive stripe about 18 mm wide and about 33 mm long on a paper substrate at the rate of about 0.55 grams of the adhesive per square foot (5.9 grams per square meter) of the adhesive stripe, detaches from the surface of the painted steel panel about 240 seconds after being adhered to the surface of the painted steel panel.

27. (Original) An adhesive article, the adhesive article comprising:

a substrate; and

a coating of the adhesive of claim 19 on the substrate, the adhesive effective to allow positioning of the adhesive article on a first application surface and repositioning of the adhesive article on a second application surface.

28. (Original) The adhesive article of claim 27 wherein the adhesive composition is effective to allow the repositioning of the adhesive article from the first application surface to the second application surface without leaving any visible residue of the pressure sensitive adhesive on the first application surface, the visible residue being any residue that is visible to the unaided eye of a human being.

Appendix A (Continued)

**CLAIMS ON APPEAL (1-51)**

29. (Original) A method of making an adhesive composition, the method comprising:  
causing a plurality of cationic microspheres to exist in a fluidizing medium to  
yield the adhesive composition, the fluidizing medium effective for  
supporting fluid application of the adhesive composition to a surface.
30. (Original) The method of claim 29 wherein the cationic microspheres have a cationic charge  
that is permanently and individually bound to each cationic microsphere.
31. (Original) The method of claim 29 wherein the cationic microspheres are derived in part  
from a CN alkyl(meth)acrylate monomer where N is any integer ranging from 4 to 14.
32. (Original) The method of claim 29 wherein the cationic microspheres are derived in part  
from an unsaturated vinyl comonomer.
33. (Original) The method of claim 29, the method further comprising incorporating a cationic  
latex adhesive binder in the adhesive composition.

Appendix A (Continued)

**CLAIMS ON APPEAL (1-51)**

34. (Original) The method of claim 33, the method further comprising incorporating a cationic surfactant in the adhesive composition.

35. (Original) The method of claim 29, the method further comprising incorporating a cationic surfactant in the adhesive composition.

36. (Previously Presented) An adhesive article, the adhesive article comprising:

a substrate; and

a coating of the adhesive composition prepared in claim 29 on the substrate, the adhesive composition effective to allow positioning of the adhesive article on a first application surface and repositioning of the adhesive article on a second application surface.

37. (Previously Presented) The adhesive article of claim 36 wherein the adhesive composition is effective to allow the repositioning of the adhesive article from the first application surface to the second application surface without leaving any visible residue of the pressure sensitive adhesive composition on the first application surface, the visible residue being any residue that is visible to the unaided eye of a human being.

Appendix A (Continued)

**CLAIMS ON APPEAL (1-51)**

38. (Original) A method of making adhesive cationic microspheres, the method comprising:  
initiating reaction of a polymerizable mixture to form the adhesive cationic  
microspheres, the polymerizable mixture comprising:  
at least one CN alkyl(meth)acrylate monomer, where N is any integer ranging  
from 4 to 14; and  
a cationic unsaturated vinyl comonomer.
39. (Original) The method of claim 38 wherein the at least one CN alkyl(meth)acrylate  
monomer comprises iso-octyl acrylate.
40. (Original) The method of claim 38 wherein the polymerizable mixture further comprises an  
unsaturated vinyl comonomer.
41. (Original) The method of claim 38 wherein initiating reaction of the polymerizable mixture  
comprises:  
including a catalyzation initiator in the polymerizable mixture; and  
triggering catalyzation initiation by the catalyzation initiator.

Appendix A (Continued)

**CLAIMS ON APPEAL (1-51)**

42. (Original) The method of claim 41 wherein triggering catalyzation initiation by the catalyzation initiator comprises warming the catalyzation initiator to cause free radical generation by the catalyzation initiator.

43. (Original) The method of claim 38, the method further comprising including a cationic surfactant in the polymerizable mixture.

44. (Original) A method of using the adhesive cationic microspheres of claim 38, the method comprising uniformly mixing the adhesive cationic microspheres with a cationic latex adhesive binder to form an adhesive composition.

45. (Original) The method of claim 44, the method further comprising including a cationic surfactant in the polymerizable mixture.

46. (Original) The method of claim 45, wherein the adhesive composition, when subjected to static angle testing on a surface of a painted steel panel, following coating of the adhesive composition as an adhesive stripe about 18 mm wide and about 33 mm long on a paper substrate at the rate of about 0.65 grams of the adhesive composition per square foot (7.0 grams per square meter) of the adhesive stripe, detaches from the surface of the painted steel panel about 300 seconds after being adhered to the surface of the painted steel panel.



Appendix A (Continued)

**CLAIMS ON APPEAL (1-51)**

47. (Original) A method of using the adhesive cationic microspheres of claim 40, the method comprising uniformly mixing the adhesive cationic microspheres with a cationic latex adhesive binder to form an adhesive composition.

48. (Original) The method of claim 47, the method further comprising including a cationic surfactant in the polymerizable mixture.

49. (Original) The method of claim 48, wherein the adhesive composition, when subjected to static angle testing on a surface of a painted steel panel, following coating of the adhesive composition as an adhesive stripe about 18 mm wide and about 33 mm long on a paper substrate at the rate of about 0.55 grams of the adhesive composition per square foot (5.9 grams per square meter) of the adhesive stripe, detaches from the surface of the painted steel panel about 240 seconds after being adhered to the surface of the painted steel panel.

50. (Original) An adhesive article, the adhesive article comprising:  
a substrate; and  
a coating of the adhesive composition prepared in claim 44 on the substrate, the adhesive composition effective to allow positioning of the adhesive article on a first application surface and repositioning of the adhesive article on a second application surface.

Appendix A (Continued)

**CLAIMS ON APPEAL (1-51)**

51. (Original) The adhesive article of claim 50 wherein the adhesive composition is effective to allow the repositioning of the adhesive article from the first application surface to the second application surface without leaving any visible residue of the pressure sensitive adhesive on the first application surface, the visible residue being any residue that is visible to the unaided eye of a human being.

Appendix B

**REFERENCES CITED BY THE EXAMINER**

(Copies Are Attached)

- \* U.S. Patent No. 4,598,112 (Howard)
- \* U.S. Patent No. 5,756,625 (Crandall)

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Appendix C  
**RELATED PROCEEDINGS**  
(There are no related proceedings)